

AMENDMENTS TO THE CLAIMS

Claims 1 to 46 ~~/~~ Cancelled without prejudice.

Claim 47. (Currently Amended) A method of generating exogenic allelism in a plant, the method comprising the steps of:

(a) providing a first plant and a second plant each including an expression cassette in the same chromosomal location, said expression cassette comprising:

(i) a first segment comprising a first promoter sequence;

(ii) a second segment comprising a first transcribable polynucleotide sequence; and

(iii) a third segment comprising a second transcribable polynucleotide sequence, said second transcribable polynucleotide sequence being operatively linked to a second promoter sequence, said third segment being flanked by said first and second segments, wherein a pair of site-specific recombination sequences are disposed one between said first segment and said third segment and another between said second segment and said third segment, such that said first promoter sequence is operatively coupled with said first transcribable polynucleotide sequence only following excision of said third segment from the expression cassette by site specific recombination via said pair of site-specific recombination sequences;

(b) introducing a recombinase into said first plant, so as to excise said third segment thereby operatively adjoining said first transcribable polynucleotide sequence to said first promoter sequence;

(c) selfing a plant resulting from step (b) and selecting a progeny ~~which is~~ devoid of said recombinase having the expression cassette wherein the third segment has been excised; and

(d) crossing a plant resulting from step (c) with said second plant thereby obtaining an offspring characterized by exogenic allelism.

Claim 48. ~~/~~ Cancelled without prejudice.

Claim 49. (Currently Amended) A method of generating exogenic allelism in a plant, the method comprising the steps of:

(a) providing a first plant and a second plant each including an expression cassette in the same chromosomal location, said expression cassette comprising:

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(i) a first segment comprising a first transcribable polynucleotide sequence, said first transcribable polynucleotide sequence being operatively linked to a first promoter sequence, said first segment being flanked by a pair of first site-specific recombination sequences; and

(ii) a second segment, being linked to said first segment, said second segment comprising a second transcribable polynucleotide sequence, said second transcribable polynucleotide sequence being operatively linked to a second promoter sequence, said second segment being flanked by a pair of second site-specific recombination sequences;

(b) introducing a first recombinase into said first plant, so as to excise said first segment, and selfing said first plant and selecting a progeny ~~which is~~ devoid of said first recombinase having the expression cassette wherein the first segment has been excised;

(c) introducing a second recombinase into said second plant, so as to excise said second segment, and selfing said second plant and selecting a progeny ~~which is~~ devoid of said second recombinase having the expression cassette wherein the second segment has been excised; and

(d) crossing a plant resulting from step (b) with a plant resulting from step (c), so as to generate an offspring characterized by exogenic allelism.

Claim 50. Cancelled without prejudice.

Claim 51. (Previously Amended) A plant homozygous for an expression cassette comprising:

(a) a first segment comprising a first transcribable polynucleotide sequence, said first transcribable polynucleotide sequence being operatively linked to a first promoter sequence, said first segment being flanked by a pair of first site-specific recombination sequences; and

(b) a second segment, being linked to said first segment, said second segment comprising a second transcribable polynucleotide sequence, said second transcribable polynucleotide sequence being operatively linked to a second promoter sequence, said second segment being flanked by a pair of second site-specific recombination sequences, said second transcribable polynucleotide sequence encoding a polypeptide or an RNA molecule capable of regulating an expression level of a product of said first transcribable polynucleotide sequence.

Claims 52-54. Cancelled without prejudice.

Claim 55. Cancelled without prejudice.

Claim 56. (Previously Amended) The method of claim 47, wherein said first and said second transcribable polynucleotide sequences encode polypeptides or RNA molecules that cause said offspring to be male sterile and female fertile.

Claim 57. (Previously Amended) The method of claim 49, wherein said first and said second transcribable polynucleotide sequences encode polypeptides or RNA molecules that cause said offspring to be male sterile and female fertile.

Claim 58. (New) A plant or plant seed produced according to the method of claim 47 characterized by exogenic allelism.

Claim 59. (New) The plant of claim 58, wherein the first and the second exogenes being in allelic relationship obligatorily segregate to different gametes.

03 Claim 60. (New) A plant or plant seed produced according to the method of claim 49 characterized by exogenic allelism.

Claim 61. (New) The plant of claim 60, wherein the first and the second exogenes being in allelic relationship obligatorily segregate to different gametes.

Claim 62. (New) The method of claim 47, wherein the first exogene encodes a cytotoxic polypeptide or a cytostatic polypeptide.

Claim 63. (New) The method of claim 62, wherein the polypeptide is pectate lyase, 1-3 β -glucanase, avidin, streptavidin, diphtheria toxin A-chain, URF13, indole acetic acid-lysine synthetase, CytA toxin, RNase-TI or Barnase.

Claim 64. (New) The method of claim 47, wherein the first exogene is RNA molecule selected from the group consisting of an antisense RNA molecule and a ribozyme RNA molecule.

Claim 65. (New) The method of claim 47, wherein the second exogene encodes a transactivator non-operable with eukaryotic promoters.

Claim 66. (New) The method of claim 65, wherein the transactivator is bacterial RNA polymerase or bacteriophage RNA polymerase.

Claim 67. (New) The method of claim 47, wherein the first promoter sequence is selected from a group consisting of constitutive promoters and induced promoters.

Claim 68. (New) The method of claim 47, wherein the second promoter sequence is a tissue specific promoter.

Claim 69. (New) The method of claim 47, wherein the expression products of the first and the second exogenes assemble into a hetero-oligomeric protein.

Claim 70. (New) The method according to claim 69, wherein the hetero-oligomeric protein is cytotoxic or cytostatic protein.

Claim 71. (New) The method of claim 49, wherein the first exogene encodes a cytotoxic polypeptide or a cytostatic polypeptide.

Claim 72. (New) The method of claim 71, wherein the polypeptide is pectate lyase, 1-3 β -glucanase, avidin, streptavidin, diphtheria toxin A-chain, URF13, indole acetic acid-lysine synthetase, CytA toxin, RNase-TI or Barnase.

Claim 73. (New) The method of claim 49, wherein the first exogene is RNA molecule selected from the group consisting of an antisense RNA molecule and a ribozyme RNA molecule.

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Claim 74. (New) The method of claim 49, wherein the second exogene encodes a transactivator non-operable with eukaryotic promoters.

Claim 75. (New) The method of claim 74, wherein the transactivator is bacterial RNA polymerase or bacteriophage RNA polymerase.

Claim 76. (New) The method of claim 49, wherein the first promoter sequence is selected from a group consisting of constitutive promoters and induced promoters.

Claim 77. (New) The method of claim 49, wherein the second promoter sequence is a tissue specific promoter.

Claim 78. (New) The method of claim 49, wherein the expression products of the first and the second exogenes assemble into a hetero-oligomeric protein.

Claim 79. (New) The method according to claim 78, wherein the hetero-oligomeric protein is cytotoxic or cytostatic protein.

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